

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 January 2004 (22.01.2004)

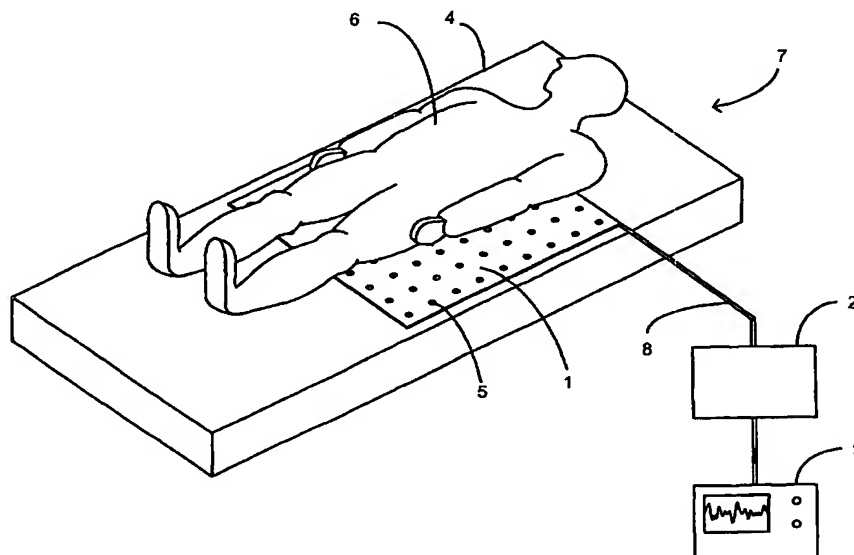
PCT

(10) International Publication Number
WO 2004/006768 A1

- (51) International Patent Classification⁷: **A61B 5/11** [CA/CA]; 4471 Shoreway Drive, Victoria, British Columbia V8N 3V1 (CA).
- (21) International Application Number: **PCT/CA2003/001081**
- (22) International Filing Date: **17 July 2003 (17.07.2003)**
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data: **2,393,880** **17 July 2002 (17.07.2002)** **CA**
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- (81) Designated States (national): **AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.**
- (84) Designated States (regional): **ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,**

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(54) Title: **BED OCCUPANT MONITORING SYSTEM**



(57) Abstract: The invention provides a bed occupant monitoring system comprising a pressure sensitive member attached to a support member for supporting a bed occupant, the pressure sensitive member comprising a plurality of pressure sensors. Each of the pressure sensors is configured to provide a reflected wave energy pressure signal by reflecting incident wave energy with an intensity which varies with a pressure applied to the sensor. A pair of fibres are coupled to each pressure sensor, each pair of fibres comprising an input fibre and an output fibre. The fibres are coupled to interface electronics comprising a wave energy source coupled to the input fibre of each of the pairs of fibres for providing the applied light energy, and, a wave energy detector coupled to the output fibre of each of the pairs of fibres for converting the scattered light energy into an electrical signal.